UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,230	08/22/2003	Shao-Chun Chen	14312US02	1388

23446   7590   06/12/2008
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER
HERRERA, DIEGO D

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
06/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _24 April 2008_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-22_ is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-22_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some *   c)☐ None of:
       1.☐ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/24/2008 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Criss et al. (US publication 20010029178 A1), in view of Angelo et al. (US patent

5974250) and in view of Peleg (US patent 6546552).

Regarding claim 1. Criss et al. discloses a mobile services network (abstract fig. 1

(whole), 12 (elements 296, 297, 298)) comprising: a mobile electronic device (mobile

terminal fig. 1 element 36); an update package repository (paragraph [0013]); generator

with nodes preprocessor which generates a package of update information and

wherein, generating comprises identifying as nodes (filenames) corresponding locations

in an old version of firmware for the mobile electronic device and a new version of

firmware for the mobile electronic device, for which contents of the location in the new

version of firmware was predicted based upon the old version of firmware (fig. 1, 5, 7;

paragraphs [0052]-[0065]; Criss et al. teaches the update packages either requested by

user of mobile device or by the mobile device is able to determine what filenames

(nodes) it needs on the update package and whether filenames need to be deleted,

added or modified). However, Criss et al. do not specify a management server,

identifying as a node a location that was not predicted. Angelo et al. teaches a

management server (col. 7 lines: 18-22, SMI system management mode) and Peleg

teaches identifying as a node a location that was not predicted (abstract, column 2 line

31- column 3 line 20, column 14 line 33- column 15 line 17 where Peleg teaches

identifying data records and link to data records (nodes) which were not known (had not

been predicted) before the updating process and noting the difference between an old

version of a data structure and a new version of a data structure). Therefore, it would

have been obvious to a person of ordinary skill in the art at the time the invention was

made by Criss et al. to specifically include management server and identify as nodes

location which had not been predicted as taught by Angelo and Peleg in order to

securely distribute code package updates while minimizing the size of the difference

between the old and new versions thus minimizing the size of the update package (as

suggested by Peleg in column 1 lines 26-50 and column 10 lines 10-15).

Consider claim 2. The network according to claim 1, Criss et al. discloses wherein the

generator with nodes preprocessor generates update packages by comparing an old

version and a new version of firmware (Criss et al. teaches comparison according to

predetermined criteria to updating being appropriate, paragraph [0016]-[0017], [0051],

[0074]).

Consider claim 3. The network according to claim 2, Criss et al. discloses wherein the

update packages are populated into the update package repository (fig. 5, 12-14,

paragraph [0101], [0103], Criss et al. teaches where the files are stored the path taken

can be stored in the host computer or FTP as to where the files names are located).

Consider claim 4. The network according to claim 2, Criss et al. discloses wherein the

generated update packages incorporate filter information (paragraph [0017], [0016],

[0051]; Criss et al. teaches that system compares version of operating system and then

sends what the mobile needs on update packages).

Consider claim 5. The network according to claim 2, Criss et al. discloses wherein the

generated update packages incorporate node information (fig. 5, 13; paragraph [0101],

[0103], Criss et al. discloses teaches that the mobile determines that the data and file

names that is to be downloaded to the mobile is different from what the mobile has,

hence, the node information is included in the update packages).

Consider claim 6. The network according to claim 1, Criss et al. discloses wherein the

management server and the update package repository are communicatively coupled

(fig. 1, abstract, paragraph [0047], Criss et al. teaches management server or host is

hardwired communicatively with FTP server).

Consider claim 7. The network according to claim 1, Criss et al. discloses wherein the

generator with nodes preprocessor and the update package repository are

communicatively coupled (fig. 1, 12, paragraph [0100], Criss et al. teaches that the

computer host and the FTP server are communicatively connected by the system

backbone).

Consider claim 8. The network according to claim 1, Criss et al. discloses wherein the

generator with nodes preprocessor is located at a remote location from the update

package repository (fig. 1, 5a-5d, 12, paragraph [0099]-[0100], Criss et al. teaches that

host and FTP server and base stations are separate from each other, Host interacts

with mobile through the base station determining update package necessitated by

mobile, FTP server contains update packages).

Consider claim 9. The network according to claim 1, combination of Criss et al. and

Angelo et al. discloses wherein the mobile electronic device comprises:

a non-volatile memory (EEPROM paragraph [0054], Criss et al. teaches EEPROM in

mobile terminal);

a random access memory (RAM paragraph [0063], [0062], fig. 5a-5d, Criss et al.

teaches type of file being assign to the package of update to mobile device hence the

ability that the mobile device has Random Access Memory); and security services

(abstract, col. 2 lines: 12-20, 56-62; Angelo et al. teaches system for transmitting

securely).

Consider claim 10. The network according to claim 9, Criss et al. wherein the non-

volatile memory comprises: an update agent; a firmware and real-time operating

system; a download agent; and a boot initialization (paragraph [0054], Criss et al.

teaches that non-volatile memory can comprise of related utility programs, hence, the

ability of possessing download agent, boot initialization, update agent, firmware, and

real-time operating system).

Consider claim 11. The network according to claim 10, Criss et al. discloses wherein

the non-volatile memory further comprises an operating system layer (BIOS paragraph

[0053]-[0054], Criss et al. teaches basic-input-output-system updates).

Consider claim 12. The network according to claim 10, Criss et al. discloses wherein

the non-volatile memory further comprises an end-user-related data and content unit

(paragraph [0054], Criss et al. teaches that non-volatile memory can comprise of related

utility programs, hence, the ability of possessing download agent, boot initialization,

update agent, firmware, and real-time operating system).

Claims 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criss et

al., and Angelo et al., Peleg (US patent 6546552) and Hayes, jr. et al. (US patent

5974312).

Regarding claim 16. the combination of Criss et al. and Angelo et al. discloses a

method for generating an update package using an old image and a new image of a

firmware in a mobile services network, the method comprising: wherein, generating

comprises identifying as nodes (filenames) corresponding locations in an old version of

firmware for the mobile electronic device and a new version of firmware for the mobile

electronic device, for which contents of the location in the new version of firmware was

predicted based upon the old version of firmware (fig. 1, 5, 7; paragraphs [0052]-[0065];

Criss et al. teaches the update packages either requested by user of mobile device or

by the mobile device is able to determine what filenames (nodes) it needs on the update

package and whether filenames need to be deleted, added or modified). However,

Criss et al. do not specifically disclose converting symbols in the new and old images of

the firmware into distance information, identifying as a node a location that was not

predicted. Nonetheless, Hayes et al. teaches the limitation (col. 10 lines: 35-40, Hayes

et al. teaches the ability to update sub-blocks of data, hence the ability to determine

distance information); determining a list of nodes in the old and new images of the

firmware, Hayes et al. teaches limitation (wireless manager, abstract, col. 15 lines: 4-9,

has list of blocks needed to be updated) and Peleg teaches identifying as a node a location that was not predicted (abstract, column 2 line 31- column 3 line 20, column 14 line 33- column 15 line 17 where Peleg teaches identifying data records and link to data records (nodes) which were not known (had not been predicted) before the updating process and noting the difference between an old version of a data structure and a new version of a data structure). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et al. to specifically include updating information with predetermined requirements as taught by Hayes et al. for the purpose of securely transferring information and updating operating software in mobile terminal and minimize the size of the difference between the old and new versions thus minimizing the size of the update package (as suggested by Peleg in column 1 lines 26-50 and column 10 lines 10-15).

Regarding claim 22. the combination of Criss et al. and Angelo et al. discloses a method for generating an update package using an old image and a new image of a firmware in a mobile services network, the method comprising the steps of:

however, Criss et al. do not discloses converting symbols in the new and old images of the firmware into distance information, identifying as a node a location that was not predicted. However, Hayes et al. teaches the limitation (col. 10 lines: 35-40, Hayes et al. teaches the ability to update sub-blocks of data, hence the ability to determine distance information); determining a list of nodes in the old and new images of the firmware, Hayes et al. teaches the limitation (wireless manager, abstract, col. 15 lines: 4-9, has list of blocks needed to be updated) and Peleg teaches identifying as a node a

location that was not predicted (abstract, column 2 line 31- column 3 line 20, column 14

line 33- column 15 line 17 where Peleg teaches identifying data records and link to data

records (nodes) which were not known (had not been predicted) before the updating

process and noting the difference between an old version of a data structure and a new

version of a data structure). Therefore, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et

al. to specifically include updating information with predetermined requirements as

taught by Hayes et al. for the purposes of securely transferring information and updating

operating software in mobile terminal and minimize the size of the difference between

the old and new versions thus minimizing the size of the update package (as suggested

by Peleg in column 1 lines 26-50 and column 10 lines 10-15).

Consider claim 13. The network according to claim 10, the combination of Criss et al.

and Angelo et al. does not specifically disclose wherein the mobile electronic device

executes an update process according to the following:

downloading an update package from the update package repository; rebooting;

executing the boot initialization; determining whether an update process is needed; and

invoking the update agent; however, Hayes, jr. et al. teaches the mobile electronic

device being able to update packages from a source, determining whether an update

process is needed, and invoking the update (col. 2 lines: 28-35, Hayes teaches unit

checking for updates by searching to establish communication with predetermined

channels with carrier. Col. 2 lines: 36-40, second device wireless programmer has

received permission to update said electronic device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the inventions of Criss et al. and Angelo et al. to specifically include the mobile

electronic device being able to update packages from a source, determining whether an

update process is needed, and invoking the update, as taught by Hayes, jr. et al. for the

purposes of reducing labor intensive updates (col. 1 lines: 50-55).

Consider claims 14 & 15. The network according to claim 13, the combination of Criss

et al. and Angelo et al. does not discloses wherein the mobile electronic device

determines the need for an update process based on status information, however,

Hayes, jr. et al. teaches the electronic device determines the need for an update

process based on status information (col. 2 lines: 27-35, Hayes teaches the ability to

have mobile device wake up and receive updates and download them from wireless

programmer; col. 16, lines: 48-51, Hayes teaches the ability of comparing and

authenticate information with wireless programmer). Therefore, it would have been

obvious to a person of ordinary skill in the art at the time the invention of Criss et al. and

Angelo et al. to specifically include the electronic device determines the need for an

update process based on status information, as taught by Hayes, jr. et al. for the

purposes of updating mobile device and reducing labor intensive updates.

Consider claim 17 and 18. The method according to claim 16 the combination of Criss

et al. and Angelo et al. does not discloses wherein the determining comprises:

determining addresses of symbols in the old image, however, Hayes et al. teaches the

limitation (col. 2 lines: 27-35, Hayes teaches the ability to have mobile device wake up

and receive updates and download them from wireless programmer); determining

addresses of symbols in the new image, however, Hayes et al. teaches the limitation

(col. 6 lines: 14-16, byte by byte or in block of bytes);

comparing the differences in the addresses of the symbols in the old image and the new

image, however, Hayes et al. teaches the limitation (col. 16, lines: 48-51, Hayes

teaches the ability of comparing and authenticate information with wireless

programmer);

predicting the differences in addresses of subsequent symbols, however, Hayes et al.

teaches the limitation (table 2 BSS block start sequence); determining the symbols for

which offsets cannot be predicted (table 2 BSS block start sequence).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made by Criss et al. and Angelo et al. to specifically include the

updating protocol determining which codes address need to be updated as taught by

Hayes, jr. et al. for the purposes of updating operating system and updating the mobile

terminal.

Consider claim 19. The method according to claim 16, the combination of Criss et al.

and Angelo et al. does not discloses wherein a pre-predict phase is performed to

generate filter information, and wherein the pre-predict phase comprises: identifying

instructions using instruction prediction; fixing address locations and producing filter

information; and fixing data and producing filter information using block hunting.

Consider claim 20. The method according to claim 16, the combination of Criss et al.

and Angelo et al. does discloses wherein the filter information comprises node location

and address range information, however they do not specifically disclose where

prediction was successful, however, Hayes, jr. et al. discloses the ability to report

success in updates (col. 2 lines: 49-50, Hayes teaches successfully device re-

programmed). Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made by Criss et al. and Angelo et al. to specifically

include the filter information comprises node location and address range information, as

taught by Hayes, jr. et al. for purposes reducing labor intensive updates (col. 1 lines: 50-

55).

Consider claim 21. The method according to claim 16, the combination of Criss et al.

and Angelo et al. does not discloses specifically wherein a pre-predict phase is

performed to generate filter information, and wherein the pre-predict phase is followed

by a predict phase, wherein the predict phase comprises:

However, Hayes, jr. et al. teaches performing instruction prediction utilizing the

generated filter information (this is understood by examiner to be updating

determination which Hayes et al. teach in col. 2 lines: 27-35, Hayes teaches the ability

to have mobile device wake up and receive updates and download them from wireless

programmer; col. 16, lines: 48-51, Hayes teaches the ability of comparing and

authenticate information with wireless programmer); and executing block hunting

utilizing the generated filter information (col. 6 lines: 8-14, Hayes teaches looking at byte

by byte or in blocks of bytes to execute instructions). Therefore, it would have been

obvious to a person of ordinary skill in the art at the time the invention was made to

modify the invention of Criss et al. and Angelo et al. to specifically include performing

instruction prediction utilizing the generated filter information; and executing block

hunting utilizing the generated filter information as taught by Hayes, jr. et al. for

purposes of cost effective updates (col. 1 lines: 50-55).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diego Herrera whose telephone number is (571) 272-

0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617